



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,825	03/22/2004	John D. Bass	02307V-133910US	4243

20350 7590 10/17/2006

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,825

Applicant(s)

BASS ET AL.

Examiner

J. Pasterczyk

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1755

1. This Office action is in response to the RCE filed 10/3/06 and refers to the final rejection mailed 4/4/06.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 56-58, 62, 63, 65, 70 and 72 are rejected under 35 U.S.C. 102(e) as being anticipated by Markowitz as cited in and for the reasons of record given in paragraph 5 of the final rejection noted above.

Applicants argue that Markowitz does not disclose a number of elements of the rejected claims. However, each of these elements is not in fact recited in the rejected claims. It is noted that the features upon which applicant relies (i.e., “spatial organization”, “random distribution”, isolated moieties, voids in the material) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In addition, applicants argue that Markowitz lacks four or more functional groups. However, it should be apparent that in a bulk material there would indeed be more than four such functional groups, though they may not necessarily be of the same type of functional group. Furthermore, since TEOS is used, there surely would be surface hydroxyl functional groups.

4. Claims 1-9, 11, 12, 16, 17, 20-22, 34, 35, 40, 42, 56-58, 62, 63, 65-67, 70 and 72 are rejected under 35 U.S.C. 102(b) as being anticipated by Katz as cited in and for the reasons of record given in paragraph 6 of the final rejection referred to above.

Applicants argue that Katz lacks thermal deprotection of the imprinted moieties. However, in the experimental section of Katz there are clearly three different temperatures

Art Unit: 1755

referred to for deprotection in three point materials, hence it would be logical to conclude that there are three different types of functional group in the material of Katz, not counting the surface hydroxyls that would be present in a silica-based material and that would impart hydrophilicity to the material. And again, applicants appeal to features not recited in the claims, e.g. four or more different functional groups, a hydrophilic material. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. Claims 34, 35, 38-40, 42, 56-58, 62-70 and 72 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis as cited in and for the reasons of record given in paragraph 7 of the final rejection referred to above.

Again, applicants point to features not actually recited in the rejected claims, here different functional groups and hydrophilicity of the material.

6. Claims 1, 2, 4-9, 11, 12, 17, 20, 34-37, 39, 40, 56-58, 62, 63, 65-67, 69, 70 and 72 are rejected under 35 U.S.C. 102(a) as being anticipated by Ki as cited in and for the reasons of record given in paragraph 8 of the final rejection referred to above.

Again, applicants point to features not actually recited in the rejected claims, here different functional groups and the material being a bulk material instead of just surface modified.

7. Claims 56-58, 60-63, 65-67, 70, 72 and 73 are rejected under 35 U.S.C. 102(b) as being anticipated by Dai I as cited in and for the reasons of record given in paragraph 9 of the final rejection referred to above.

Art Unit: 1755

Applicants again point to features not recited in the rejected claims, here the presence of different functional groups rather than just plural functional groups. In addition, the prior art clearly discloses that the surfaces of mesopores are imprinted (see caption to figure 2), which would read on applicants' terms "imprinted" or "imprinting".

8. Claims 56-58, 60-63, 65-67 and 69-73 are rejected under 35 U.S.C. 102(b) as being anticipated by Dai II as cited in and for the reasons of record given in paragraph 10 of the final rejection referred to above.

Applicants again point to features not recited in the rejected claims, here the presence of different functional groups rather than just plural functional groups. In addition, the prior art clearly discloses that the surfaces of mesopores are imprinted (see figures 3 and 4), which would read on applicants' terms "imprinted" or "imprinting".

9. Claims 10, 13-15 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz as cited in and for the reasons of record given in paragraph 12 of the final rejection referred to above.

Applicants assert that Katz lacks any teaching of using thermal deprotection of the template molecules from the substrate. However, "**Procedures for imprint cleavage**" on the last page of the reference states in part "Increasingly higher temperatures were used to effect deprotection in the multiple point materials". This would appear to contradict applicants' assertion.

10. Claims 18, 19, 23-27, 30-33, 41, 43-55 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz in view of Dai II as cited in and for the reasons of record given in paragraph 13 of the final rejection referred to above.

Art Unit: 1755

Applicants again appeal to features not specifically recited in the claims, e.g. plural different functional groups in the material made by the process. However, given that silica normally has surface hydroxyl groups, such a limitation would appear to have been conventional; in addition, Dai II clearly teaches both primary and secondary amines in its materials (figure on cover page) as well as secondary amines and imines (figure 1B, last structure), these examples both having two different functional groups and which would be motivation to one of ordinary skill in the art to further explore using different functional groups in the same material. In addition, since both references are drawn to the same problem, they would have been considered analogous art and thus combinable.

11. This is an RCE of applicant's earlier Application No. 10/806825. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however,

Art Unit: 1755

event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

AU 1755

10/15/06



J. A. LORENGO
SUPERVISORY PATENT EXAMINER